

San Francisco Bay Area Rapid Transit District

**Addendum to Final Initial Study/Mitigated Negative
Declaration for the Hayward Maintenance Complex
Project**

**COMPONENT REPAIR SHOP—BUILDING 3
REPLACEMENT**

March 27, 2013

Addendum to Final Initial Study/Mitigated Negative Declaration for the Hayward Maintenance Complex Project:

COMPONENT REPAIR SHOP—BUILDING 3 REPLACEMENT

Introduction and Purpose

In the original Hayward Maintenance Complex (HMC) plan, an existing warehouse (Building 3) would be renovated and become the Component Repair Shop. The project design has evolved, and the current plan is to demolish Building 3 and replace it with a new structure to house the Component Repair Shop. The purpose of this Addendum is to examine if the demolition of Building 3 and construction of a new structure would require additional environmental analysis beyond that provided in the HMC Initial Study/Mitigated Negative Declaration (IS/MND). Based on the following evaluation, no additional environmental review is required.

Original HMC Plan

There are four existing warehouses on the west side of the Hayward Yard. (See Figure A.) The northernmost warehouse (Building 4) will to be demolished and replaced by a new overhaul shop. The northernmost of the three retained warehouses (Building 3) was to be renovated to become the Component Repair Shop. The Final IS/MND (page 10, Final IS/MND) described the renovation to the structure as follows:

The Component Repair Shop would be located in one of the existing buildings, a 120,000-square-foot structure constructed of concrete slab-on-grade, wood columns and laminated beams, plywood panel roof, and concrete tilt-up exterior walls. Truck loading docks are located along the structure's east side.

The structure would serve as the Component Repair Shop, with three major areas: the truck shop, electronic repair shop, and electro-mechanical repair shop. Renovations would be made within the existing building footprint, and building modifications would be minimized. The existing roof, columns, and walls would be used without major modifications to the degree possible. The existing floor area would be demolished leaving columns and footings in place and would be replaced with new concrete, equipment footings, embedded rail, pits, etc. The roof would be raised approximately 10 feet to accommodate a new 10-ton overhead crane. The structure would be upgraded to new seismic code requirements. New bathrooms and break rooms would be added to accommodate the workforce.

Revised Component Repair Shop Plan

As the detailed analysis of the HMC Project progressed, the advantages of retaining the existing Building 3 structure decreased. The current structure is a tilt-up building designed for warehousing. Although BART could have renovated the structure to bring it to current seismic standards, the repair functions in the Component Repair Shop are essential to the BART system, and as such, the structure must meet life-safety requirements to allow it to function following a catastrophic event. BART has determined that a new structure constructed to higher seismic standards would better meet long-term service goals.

Therefore, the HMC Project has been modified to demolish Building 3 and replace it with a new structure to house the Component Repair Shop.

The new structure would have the same approximate horizontal dimensions (600 feet long, 200 feet wide) as the existing structure and a 125,530 square-foot footprint. Compared to the existing footprint, this is a 4.6 percent increase in square footage. Interior space will be expanded to 157,930 square feet with the addition of 32,400 square feet on a mezzanine floor for offices and the Electronic Repair Shop, representing a 32 percent increase in available office space compared with the existing building footprint.

The new structure would be shifted 20 feet to the south of its current location. The increased distance will provide additional width to accommodate the north-south roadway and an easement for a relocated water line as well as other utilities between the new Vehicle Repair Shop and the Component Repair Shop. The roadway was described in the IS/MND and would connect the existing driveway serving the west side of the HMC project to Sandoval Way and the Hayward Main Shop area. This southward shift would reduce the distance between the Component Repair Shop and adjacent structure on the south, Building 2, from 100 feet to 80 feet. The new building would be a structural steel frame building clad with metal panels. The new structure would be higher than the 26-foot-tall existing structure. The new building roof line would vary in height, with three different roof levels of 30 feet, 38 feet and 45 feet. (See Elevations, Figure B.) The Component Repair equipment and operations within the building would be the same as originally proposed. The number of employees in the Component Repair Shop would stay the same as originally proposed in the IS/MND (75 during peak occupancy, 150 total).

Demolition of the existing building and construction of the new Component Repair Shop building would be similar to those described for the Overhaul Shop in the IS/MND (pp. 20-21). An estimated 500 truck trips over and above those described in the IS/MND would be required to remove the demolition debris and deliver new construction material. Approximately one-half of those additional truck trips (250) would take place over a 2-month demolition period and the remainder would deliver material over the 11-month construction period to follow.¹

Previous Environmental Review

An Initial Study/Mitigated Negative Declaration (IS/MND) was conducted for the HMC Project, which was adopted by the BART Board on May 26, 2011. The Board approved the HMC Project on the same date. The FTA approved a Categorical Exclusion for the HMC Project on September 21, 2011. The IS/MND examined the full range of potential environmental impacts and provided mitigation measures where potentially significant impacts were identified.

Purpose of Addendum

Section 15164 of the CEQA Guidelines allows a Lead Agency to prepare an Addendum to a previously adopted Negative Declaration if some changes or additions are necessary, as long as none of the conditions described in Section 15162 requiring the preparation of a subsequent EIR or Negative Declaration have occurred. In brief, Section 15162 states that when an EIR has been certified or Negative Declaration adopted, no subsequent EIR or Negative Declaration needs to be prepared for the project

¹ Galip Sukaya, P.E., Project Engineer, personal communication, January 22, 2013.

unless the Lead Agency determines, on the basis of substantial evidence in the light of the whole record, that there are substantial changes proposed in the project which require major revisions of the previous EIR or Negative Declaration, substantial changes occur with respect to the circumstances under which the project is undertaken, or there is new information of substantial importance regarding new significant effects, more severe effects, or the feasibility or effectiveness of mitigation measures.

Environmental Assessment

The following analysis provides a review of the topics in the IS/MND to examine if any of the conditions requiring subsequent environmental review would be triggered by the proposed demolition and reconstruction of Building 3. Based on this analysis, no subsequent environmental review is necessary.

Aesthetics: The new structure would be the same basic footprint and horizontal dimensions as the existing structure, and the building would be shifted 20 feet to the south. The original HMC plan called for raising the roof of the building by from 25 feet to approximately 35 feet. The revised plan would construct a new building with three different roof levels, but with a maximum height of 45 feet. The new building would be a steel frame building with metal panels for walls, similar to the construction of the Hayward Main Shop. As noted in the Aesthetics section of the IS/MND, the west side of the HMC Project is surrounded by industrial uses. The BART mainline tracks are to the east, the Union Pacific Railroad is to the west, and there are other industrial buildings to both the north and south. There are no immediate views of the area from locations open to the public. Given the relatively minor increase in size and height of the new structure compared to the existing building and other existing structures, its 20-foot shift to the south, and the site's lack of visual access, there would be no change to the determination in IS/MND that there is a less than significant visual impact.

Agriculture and Forestry Resources: No agriculture or forestry resources are present.

Air Quality: Demolition of the structure would create additional dust. The IS/MND includes Mitigation Measure AQ-2 (Dust Control During Construction) that requires contractors to implement standard Bay Area Air Quality Management District (BAAQMD) measures to control construction dust, which would also apply to the demolition of Building 3.

Biological Resources: The area around Building 3 is developed and paved. The only biological resources affected would be a small number of ornamental trees and shrubs at the corners of Building 3. These would be removed as part of the demolition of Building 3. Mitigation Measures BIO-2 (Restrictions on Tree or Shrub Removal to Avoid Nesting Birds), BIO-3 (Pre-construction Nesting Bird Survey and Measures to Reduce Harm to Nesting Birds), and BIO-4 (Tree Survey and Replacement of Protected Trees to the Removed) as identified in the IS/MND would apply to the demolition and construction of a new Component Repair Shop, just as they applied to other elements of the HMC project.

Cultural Resources: No cultural resources were identified in the HMC Project area. However, the IS/MND included two mitigation measures (CR-1 and CR-2) to ensure that there would be no significant impacts to unknown subsurface resources or human remains.

Geology and Soils: The IS/MND identified potential geologic and soil hazards related to strong seismic ground shaking, liquefaction, lateral spreading, settlement, expansive soils, and erosion of excavated areas. In each case, implementation of the BART Facilities Standards as identified in the IS/MND would

ensure that the project, including the demolition and reconstruction of Building 3, would be designed and constructed in a manner that the potential hazards would be reduced to a less-than-significant level.

Greenhouse Gas Emissions (GHG): BART calculated the HMC GHG emissions by comparing the net difference between the GHG emissions of the HMC Project minus the emissions generated by the existing warehouse uses to the BAAQMD GHG threshold.² (The GHG analysis is provided in Appendix A.) The analysis demonstrated that the revised Component Repair Shop, and the HMC Project as a whole, would not exceed the BAAQMD GHG operational significance threshold of 1,100 metric tons per year. In addition, a second comparison was conducted using project-specific data (specifically the lower net vehicle trip generation rate) and the resulting emissions again were compared with the BAAQMD GHG threshold. The second case also showed that the project GHG emissions would not exceed the BAAQMD threshold for GHG gases. Therefore the revised plan for the Component Repair Shop is still consistent with the GHG determinations made in the IS/MND that the project would not have a significant GHG-related impact.

There would be short-term construction emissions related to the demolition. Mitigation Measure GHG-1 (Construction-Related Greenhouse Gas Best Management Practices) was adopted as part of the project and would apply to demolition of Building 3, as well as the rest of the project.

Hazards and Hazardous Materials: No new materials or processes would be involved in a newly constructed Component Repair Shop that would not have been used in the same activities in a reconstructed Building 3, which was analyzed in the IS/MND. Based on the 1985 and later construction dates for warehouse buildings, it is unlikely that lead-based paint or asbestos are present. A Phase I Environmental Site Assessment was completed for the properties containing the four existing warehouses in May 2012.³ The properties are listed on various environmental databases for soil and ground water contamination: Cortese, Leaking Underground Storage Tanks (LUST) and Spills, Leaks, Investigations and Cleanups (SLIC). The contamination is related to a former metal fabricating facility on the site that operated from the 1970s until 1985 and a metal fastener fabricating plant that operated from 1985 to 1992. According to the LUST listing, in 2003, the site received case closure for a gasoline release. After the metal and metal fastener fabricating facilities vacated the site, four underground storage tanks and a septic tank were removed, and contaminated soil removal and groundwater treatment were

² On March 5, 2012, an Alameda County Superior Court judge held that the CEQA significance thresholds adopted by BAAQMD in 2011, including its threshold for GHG emissions, constitute a "project" subject to CEQA review. *California Building Industry Association v. Bay Area Air Quality Management District*, Alameda County Superior Court Case No. RG10548693. The court did not determine whether the thresholds were valid on the merits, but issued a writ of mandate ordering BAAQMD to set aside the thresholds and cease dissemination of them until it had complied with CEQA. BAAQMD has appealed the court's decision and the appeal is currently pending. Meanwhile, lead agencies must identify their own GHG significance thresholds impacts based on substantial evidence in the record, as provided in CEQA Guidelines sections 15064.4 and 15064.7. Notwithstanding that the BAAQMD CEQA thresholds have been set aside, BART has determined that the extensive studies and analysis conducted by BAAQMD while developing its GHG significance criteria constitute substantial evidence supporting their use by BART. See BAAQMD California Environmental Quality Act Air Quality Guidelines (2011), Appendix D, Threshold of Significance Justification. Accordingly, pursuant to CEQA Guidelines section 15064.7, BART is exercising its discretion to utilize the BAAQMD GHG thresholds for purposes of this Addendum.

³ Environmental Resources Management, Phase I Environmental Site Assessment, Hayward Yard-Bowman Place Properties; 1001-1085 Whipple Road, May 2012.

conducted under the supervision of the Regional Water Quality Control Board (RWQCB). The RWQCB granted closure for the site in 2007. However, access to all portions of the site and personnel knowledgeable about past and current tenant operations were not available at the time of the Phase I investigation. There are also several contaminated properties nearby, including a U.S. Pipe facility to the west-southwest of the warehouses listed in the SLIC and other databases indicating environmental impairment. Therefore, there are remaining unknowns regarding past and current site operations and potential migration of contaminants from adjacent properties.

A Phase II Environmental Site Investigation was conducted, and a draft report was released in September 2012.⁴ Borings were made around and between the warehouses, and soil and groundwater samples were taken and analyzed. The results of that investigation did not indicate the obvious presence of significant releases of hazardous substances at the site, although low levels of volatile organic compounds are present in soil vapor, including detections of ethylbenzene above regulatory screening levels that may be attributed to off-site sources or former on-site activities. Detections above screening levels of arsenic in soil and vanadium in groundwater appear to be related to natural background concentrations. However, it is possible that higher concentrations of regulated hazardous substances are present at the site in areas that were not sampled, including possible shallow and deep groundwater contamination. The IS/MND contains mitigation measures in the event hazardous substances are found to be present. Mitigation Measure HAZ-3 (Remediation of Contaminated Sites Prior to Construction) and HAZ-4 (Discovered Environmental Contamination During Construction) would be implemented if necessary. These mitigation measures apply to the demolition and construction of a new Component Repair Shop just as they applied to the original plan to reconstruct Building 3.

Hydrology and Water Quality: The project area is developed and paved. The demolition and reconstruction of the structure would not create any additional impermeable surface and would not change drainage patterns.

Land Use and Planning: Existing land uses in the project area have not changed and the Component Repair Shop would have the same intended uses that were discussed in the IS/MND.

Mineral Resources: There are no mineral resources in the project area.

Noise and Vibration: Operational and construction impacts for noise and vibration were evaluated in the IS/MND. The noise and vibration analysis for HMC operations included activities in the west side expansion area, which includes Building 3. The reconstructed Building 3 would house the same Component Repair Shop activities analyzed in the original analysis, which determined that there would be no significant noise or vibration impacts from HMC operations in the west side expansion area.

The IS/MND also analyzed construction noise and vibration. Construction noise impacts are directly related to the type of equipment being employed and the distance to sensitive receptors. Equipment used in the demolition, such as bulldozers, loaders and hoe rams, would be similar to what would be employed for the demolition of Building 4, which was included in the construction noise analysis. Building 3 is located along the west side of the HMC project. Adjacent land uses west of Building 3 are industrial and

⁴ Environmental Resources Management, Final Phase II Environmental Site Investigation, 1001-1085 Whipple Road, December 2012.

include railroad tracks and construction and storage yards. The closest sensitive receptors are residents in homes along the east side of the yard. These residents are separated from Building 3 by the width of the Hayward Yard and are approximately 675 feet from Building 3. This is the same distance as other elements of the west side expansion that were examined in the IS/MND. No significant construction noise impacts were identified for the west side construction, including the demolition and reconstruction of Building 4; therefore no significant noise impacts are anticipated from the demolition and reconstruction of Building 3.

Construction vibration dissipates quickly as distance from the construction increase. No significant construction vibration impacts were identified for the west side expansion area; therefore no significant vibration impacts are anticipated for the demolition and reconstruction of Building 3.

Population and Housing: Operational employment would be the same as with the original HMC Project. Construction employment could be slightly higher than the originally anticipated due to the additional work for demolition and reconstruction of Building 3, but these would be temporary employees and would not have an effect on local population growth or housing stock.

Public Services: No significant public service impacts were identified with the HMC Project and the demolition of Building 3 would not affect the need for police, fire, schools, parks or other public facilities.

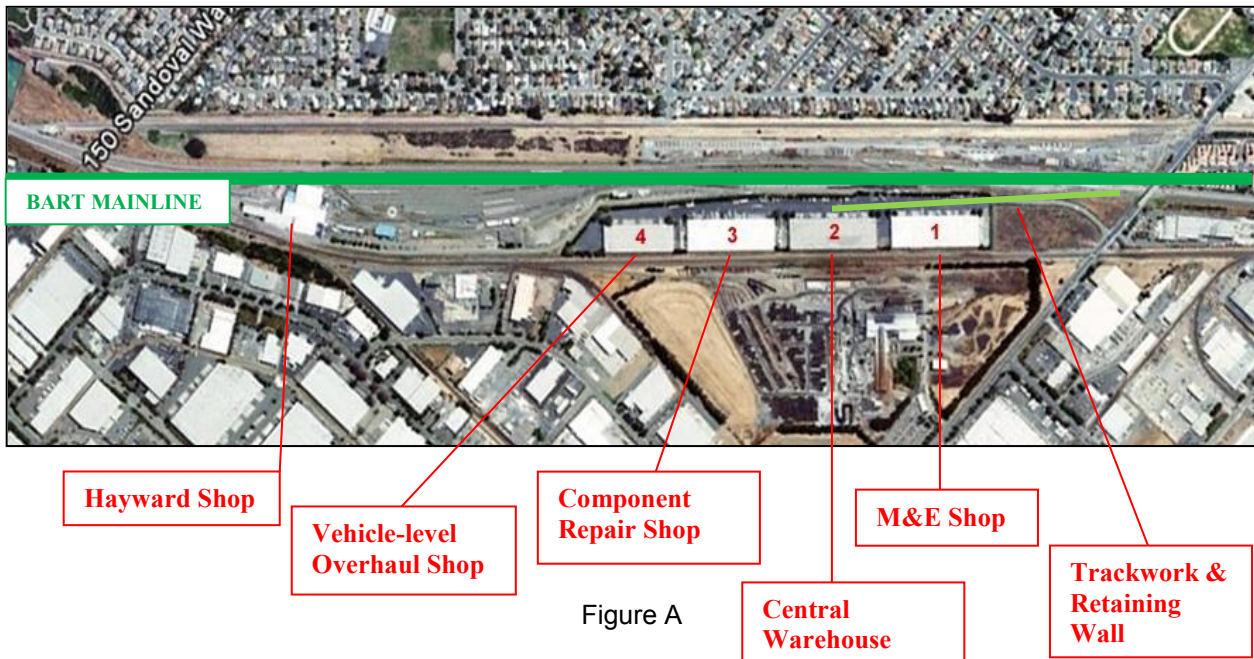
Recreation: No recreation impacts were identified with the HMC Project. Construction employment could be slightly higher than originally anticipated due to the additional work for demolition and reconstruction of Building 3, but these would be temporary employees and would not have an effect on local recreation needs.

Transportation/Traffic: As described in the IS/MND, construction activities would take place in two Phases. Phase 1 would take place over approximately 36 months and would include construction of the west side expansion area: Vehicle Overhaul Shop, Component Repair Shop, Central Warehouse, and M&E Vehicle and Storage Area. The IS/MND analysis calculated that approximately 3,110 truck trips would take place during Phase 1 to support demolition of existing structures, delivery of building materials and concrete, and retrofitting the three warehouses that would remain as part to the HMC Project. Demolition of Building 3 is estimated to generate an additional 500 truck trips that would increase truck activity for Phase 1 construction to 3,610 truck trips. Most of these truck trips would enter and exit the west side expansion area via the project access on Whipple Road. Approximately one-half of the additional truck trips (250 truck trips) would take place during the 2-month demolition period for Building 3, with the remainder taking place over the expected 11-month construction of the replacement building. Assuming that the 250 truck trips during demolition would be distributed over 2 months (40 working days), truck activity during demolition would add approximately six additional truck trips per day. Although truck activity during Building 3 construction would be approximately the same as during demolition, it would be spread out over a much longer period and therefore would have a smaller effect on traffic. As noted on page 125 of the IS/MND, approximately 100 to 105 daily truck trips would be generated during project construction. Adding the additional six trucks daily from the demolition would increase the truck traffic to approximately 110 daily truck trips. Applying the passenger car equivalent (PCE) rate of 2.0, there would be a minimum of 200 to approximately 220 vehicle trips during demolition of Building 3. This would be less than the approximately 710 daily vehicle trips (with up to 32 percent

truck trips) that were recorded with the project site in warehouse use. The IS/MND contains Mitigation Measure TR-1 (Construction Phasing and Traffic Management Plan) that requires the contractor develop and implement a plan that defines how traffic operations are managed and maintained during each phase of construction. The plan will include predetermined haul routes and will identify activities, such as truck activities, that must take place during off-peak hours. Considering the level of additional truck activity (six trucks per day) and the existing requirement for a construction phasing and traffic management plan, the additional truck activity related to the Building 3 demolition would not create any new or more severe significant impacts not anticipated in the IS/MND.

Utilities and Service Systems: No significant impacts to utilities and service systems were identified in the IS/MND for the HMC Project. The demolition and reconstruction of Building 3 would not change the uses within the Component Repair Shop and would not change the less-than-significant impact on utilities and systems.

Mandatory Findings of Significance: The IS/MND did not identify any potentially significant impacts triggering mandatory findings of significance. The demolition and reconstruction of Building 3 would not affect that conclusion or result in any mandatory findings of significance.



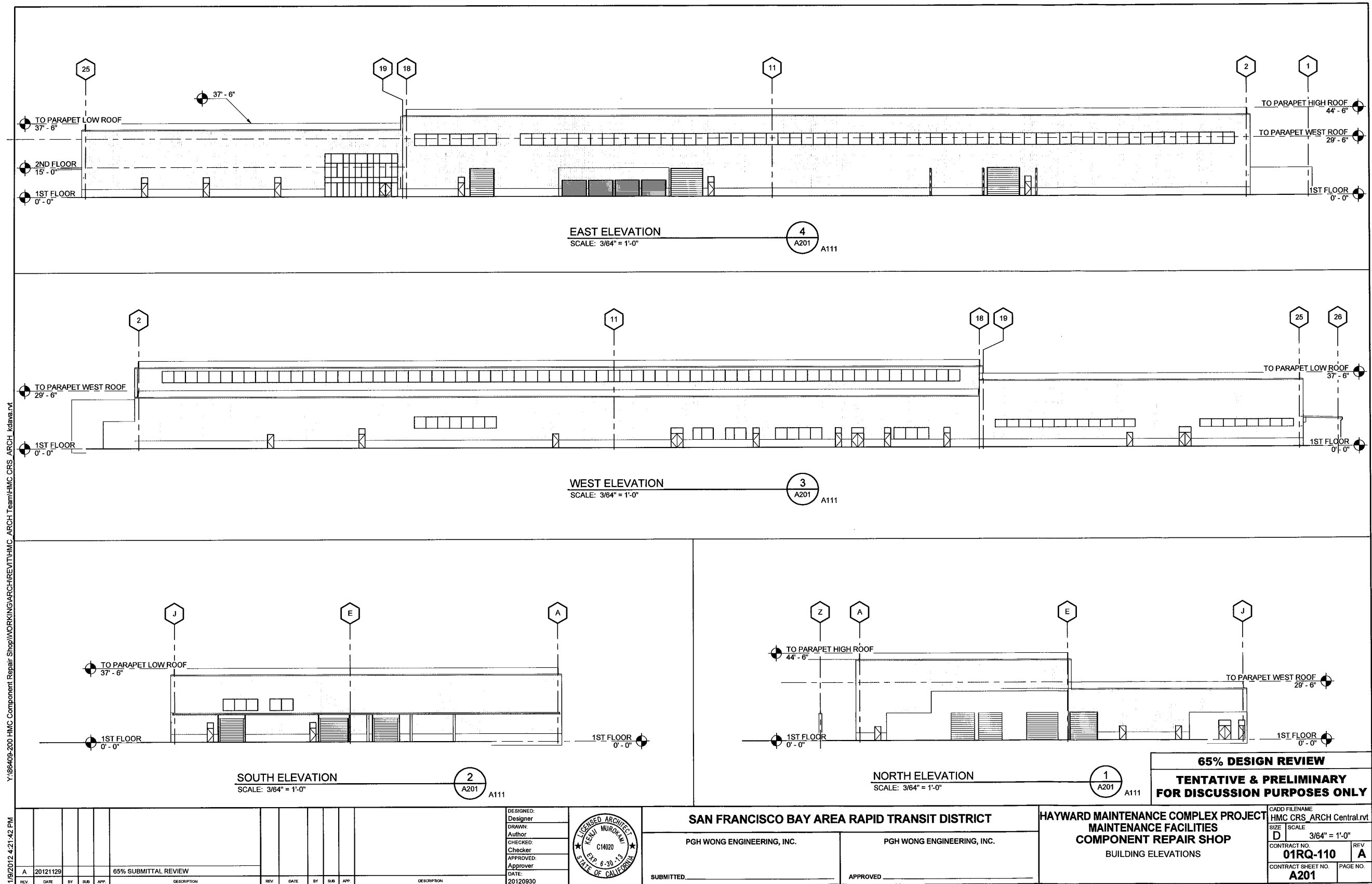


Figure B

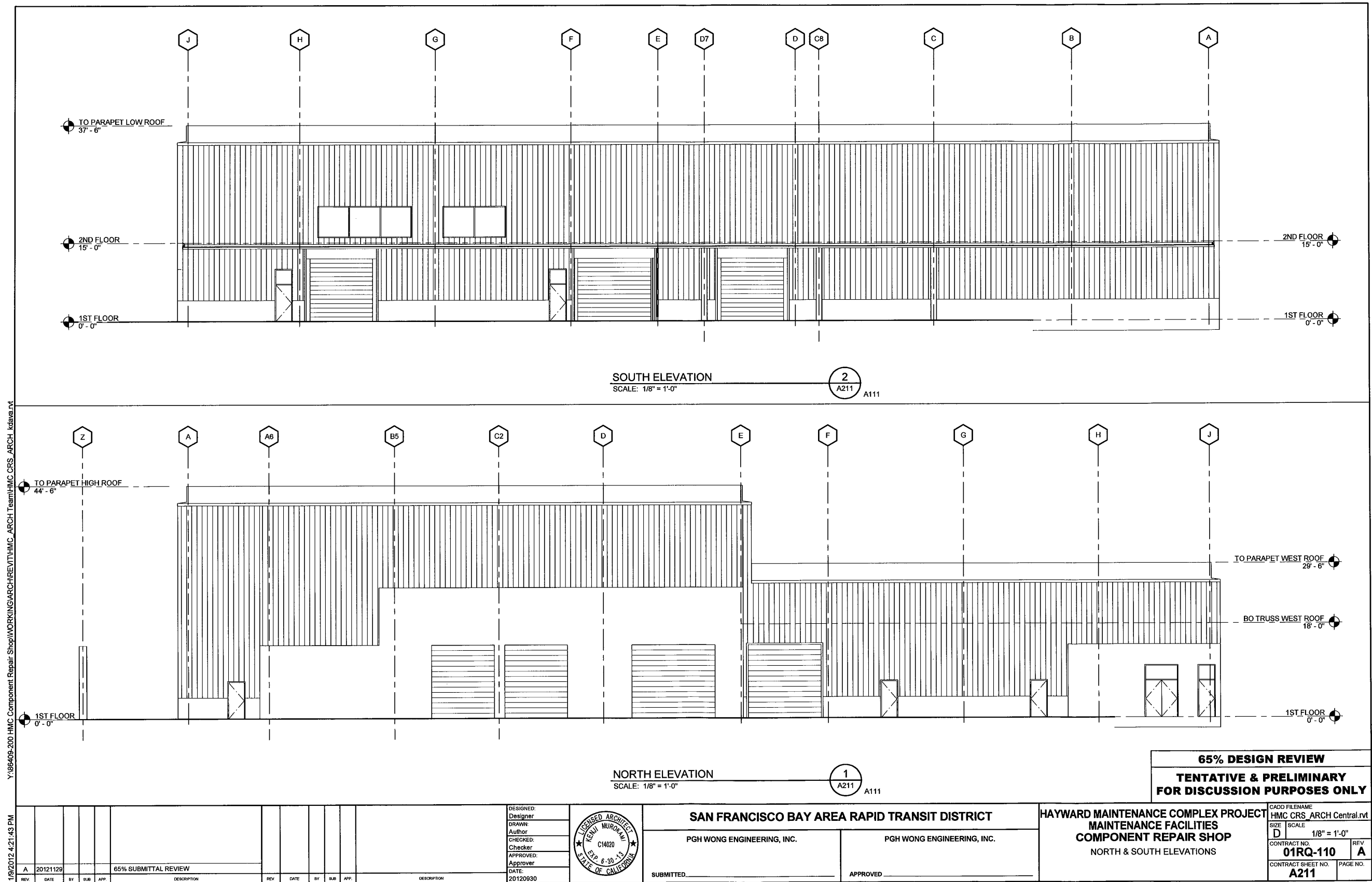


Figure B

APPENDIX A

Supplementary Greenhouse Gas Analysis

Memorandum

To: Don Dean, BART

From: Geoff Hornek, Environmental Air Quality Consultant

Date: December 12, 2012

Re: Calculation of BART Hayward Maintenance Complex (HMC) Greenhouse Gas (GHG) Emissions and Comparison with the Bay Area Air Quality Management District (BAAQMD) California Environmental Quality Act (CEQA) Significance Threshold

In May 2011, BART issued a Final Initial Study/Mitigated Negative Declaration (IS/MND) for its proposed Hayward Maintenance Complex (HMC) project. At that time, the HMC project included the renovation of an existing 120,000-square-foot warehouse (Building 3) to become the Component Repair Shop. But since then BART has decided to alter the Project Description to demolish the old warehouse and build a new structure to house the Component Repair Shop, adding approximately 5,530 square feet (a 4.6 percent increase) to the footprint and an additional 32,400 square feet of interior space (on a mezzanine floor) for a total of 157,930 square feet compared to the plan analyzed in the IS/MND.

With this addition, the HMC project will exceed the Bay Area Air Quality Management District's (BAAQMD's) 121,000-square-foot (net new) operational greenhouse gas (GHG) screening threshold for "General Light Industrial" developments (the land use category in the BAAQMD screening methodology assumed to best-fit the HMC project).¹

The BAAQMD GHG screening threshold was set based on GHG emissions expected from specific land use categories, as defined and determined by the URBEMIS emission model (with the BAAQMD's BGM add-on spreadsheet for quantifying non-transportation source GHG emissions) using model-defined default assumptions for GHG emissions from motor vehicle trips, energy/water use, solid waste generation, etc. For projects in each land use category exceeding the size specifications of the screening thresholds, GHG emissions would exceed 1,100 metric tons per year

¹On March 5, 2012, an Alameda County Superior Court judge held that the CEQA significance thresholds adopted by BAAQMD in 2011, including its threshold for GHG emissions, constitute a "project" subject to CEQA review. *California Building Industry Association v. Bay Area Air Quality Management District*, Alameda County Superior Court Case No. RG10548693. The court did not determine whether the thresholds were valid on the merits, but issued a writ of mandate ordering BAAQMD to set aside the thresholds and cease dissemination of them until it had complied with CEQA. BAAQMD has appealed the court's decision and the appeal is currently pending. Meanwhile, lead agencies must identify their own GHG significance thresholds impacts based on substantial evidence in the record, as provided in CEQA Guidelines sections 15064.4 and 15064.7. Notwithstanding that the BAAQMD CEQA thresholds have been set aside, BART has determined that the extensive studies and analysis conducted by BAAQMD while developing its GHG significance criteria constitute substantial evidence supporting their use by BART. See BAAQMD California Environmental Quality Act Air Quality Guidelines (2011), Appendix D, Threshold of Significance Justification. Accordingly, pursuant to CEQA Guidelines section 15064.7, BART is exercising its discretion to utilize the BAAQMD GHG thresholds for purposes of this Addendum.

(MT/year), which is the BAAQMD's GHG operational emissions CEQA significance threshold. Since the HMC project exceeds the BAAQMD square-footage screening threshold, the next-level CEQA analysis is called for, which would use the URBEMIS/BGM model to estimate the net project GHG emissions with model default assumptions about GHG emission rates from motor vehicles and other important GHG sources (i.e., electricity and water use, solid waste generation, etc.).

Accordingly, GHG emissions were estimated for the proposed project (i.e., the Component Repair Shop, which was assumed to best-fit the URBEMIS "General Light Industrial" land use category) and the existing warehouse it would replace (using the "Warehouse" land use category in URBEMIS). Such emissions for the project and existing land uses using URBEMIS default assumptions are shown in the table below, along with the net emissions for each GHG source category and for the total. The BAAQMD CEQA threshold, which would apply only to net project emissions, is not exceeded in this case, which assumes that the project would be in accord with all default GHG emission rate assumptions in URBEMIS.

However, there is one instance where URBEMIS default assumptions could be replaced with more accurate project-specific data to more accurately estimate net project emissions. URBEMIS assumes that a "General Light Industrial" use would generate 6.97 daily motor vehicle trips per 1000 square feet of floor area, and that a "Warehouse" use would generate 4.96 daily motor vehicle trips per 1000 square feet of floor area. Using these rates, URBEMIS would estimate that project development would produce a net increase of 622 daily motor vehicle trips. But the traffic study done for the HMC project estimates a net reduction of 314 daily motor vehicle trips (because maintenance facility space generates fewer motor vehicle trips than the same amount of warehouse space and because of a further 20% reduction in worker trips due to BART's commitment to provide a peak-hour BART stop at the HMC complex for HMC employees). This removal of motor vehicle trips will reduce the overall total net facility GHG emissions as shown in the last column of the table below. Not only will the total net GHG emissions not exceed the BAAQMD threshold, but there will be a net project benefit to global GHG emissions because of the project-induced reduction in motor vehicle trips.

BART Hayward Maintenance Complex – Greenhouse Gas Emissions Estimates and Comparisons (CO2e - Metric Tons/Year)

GHG Source Category	Proposed Project (General Light Industry) Using All URBEMIS Default Rates	Existing Use to be Removed (Warehouse) Using All URBEMIS Default Rates	Net Project GHG Emissions Using All URBEMIS Default Rates	Net Project GHG Emissions With Project-Specific Motor Vehicle Trip Rate
Transportation	1418.0	697.3	720.8	-404.4
Area Source	0.2	0.2	0.0	0.0
Electricity	445.5	353.9	91.6	91.6
Natural Gas	36.3	28.9	7.5	7.5
Water & Waste Water	5.0	4.0	1.0	1.0
Solid Waste	111.5	209.7	-98.1	-98.1
Agriculture	0.0	0.0	0.0	0.0
Off-Road Equipment	0.0	0.0	0.0	0.0
Refrigerants	0.0	0.0	0.0	0.0
Sequestration	N/A	N/A	N/A	N/A
Purchase of Offsets	N/A	N/A	N/A	N/A
Total	2016.7	1293.9	722.8	-402.4
BAAQMD Significance Threshold (for Net Project)			1100	1100
Project Exceeds Threshold?			No	No
Source: URBEMIS emission model with the BAAQMD's Bay Area Greenhouse Gas Model (BGM) add-on spreadsheet for quantifying non-transportation source GHG emissions; estimates generated December 2012.				